AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A signal modification method, comprising:

receiving an input signal at an input of a filter;

sensing a high amplitude of a first portion of an input signal;

determining a scaling value based on a value of the high amplitude;

scaling a binary range associated with one or more taps of the filter to the scaling value a value of a high amplitude of a portion of that input signal;

storing a value corresponding to a second portion of the input signal in association with one of the taps according to the scale; and

modifying the input signal by an amount commensurate with the stored portion of the input signal.

2. (original) The method of claim 1, wherein the received signal is an analog signal.

3. (original) The method of claim 1, wherein the filter is a finite impulse response filter.

4. (original) The method of claim 1, wherein an amplitude of the second portion of the input signal is stored.

5. (original) The method of claim 4, wherein the amplitude is an amplitude of an echo component of an audio signal.

6. (original) The method of claim 1, further comprising outputting the modified signal from the filter.

7. (original) The method of claim 1, wherein the high amplitude is an amplitude under which a desired portion of one or more actually measured amplitudes of the input signal fall.

8. (original) The method of claim 1, wherein the binary range is a range of binary values that may be represented by a plurality of bits.

9. (original) The method of claim 1, wherein the binary range is scaled proportionately.

10. (original) The method of claim 1, further comprising scaling the plurality of bits proportionately such that a negative binary value that may be represented by that plurality of bits represents the negative of the absolute value of the high amplitude and a positive binary value that may be represented by that plurality of bits represents the absolute value of the high amplitude.

11. (original) The method of claim 10, wherein the negative binary value is the largest negative binary value that may be held by the plurality of bits and the positive binary value is the largest positive binary value that may be held by the plurality of bits.

12. (original) The method of claim 1, wherein the high amplitude is a largest of a plurality of measured amplitudes of an echo in an audio transmission.

13. (original) The method of claim 1, wherein the high amplitude is a function of a sampling of a plurality of actually measured amplitudes of echo in an audio transmission.

14. (currently amended) A method of scaling a value associated with a finite impulse response filter tap to an echo amplitude, comprising:

determining a range of values that may be held in binary in association with the tap;

sensing a high value of the range of values;

determining a scaling value based on the high value of the range of values~~determining a range within which a normal echo amplitude portion of an audio signal falls~~; and

scaling the range of values that may be held in binary in association with the tap to the scaling value ~~range within which normal echo amplitude falls~~.

15. (previously presented) The method of claim 14, further comprising measuring echo amplitude using the finite impulse response filter and storing a value corresponding to the magnitude of the measured amplitude in association with the filter tap based on the scale.

16. (previously presented) The method of claim 14, further comprising reducing the audio signal by the amplitude associated with the filter tap.

17. (currently amended) A device, comprising:

a signal modification element coupled to a signal;

a plurality of bits coupled to the signal modification element, the plurality of bits having a range of values that may be held therein;

a scaling element coupled to the signal modification element and the plurality of bits to

sense a high amplitude of the range of bits, determine a scaling value based on a value of the high amplitude, scale a first amplitude measured at the signal modification element to the scaling value ~~the range of values that may be held in the plurality of bits~~ and store a value that represents a second measured amplitude in the plurality of bits according to that scale; and

a signal reduction element coupled to the plurality of bits.

18. (original) The device of claim 17, wherein the signal modification element is a digital signal filter.

19. (original) The device of claim 17, wherein the signal modification element is a finite impulse response filter.

20. (original) The device of claim 19, wherein the finite impulse response filter is coupled to an audio signal to measure an echo portion of that audio signal.

21. (original) The device of claim 20, wherein the plurality of bits is associated with a tap of the finite impulse response filter.

22. (original) The device of claim 17, wherein the signal modification element is coupled to a first signal and the signal reduction element is coupled to a second signal.

23. (currently amended) A voice over internet protocol communication device, comprising:

a digital audio receiver;

a digital to analog decoder coupled to the digital audio receiver;

an adaptive filter having an input to couple to a first signal to be received from the digital to analog decoder; that is to sense a high amplitude of the first signal,

determine a scaling value based on a value of the high amplitude, scale a range of values that may be held in a plurality of bits associated with the adaptive filter to the scaling value a high amplitude incident on the first signal, store a second amplitude incident on the first signal in the plurality of bits in accordance with the scale; and having an output to transmit a second signal that is equivalent to the first signal reduced by the second amplitude;

an analog to digital converter coupled to the second signal; and

a digital audio transmitter coupled to the analog to digital converter.

24. (original) The voice over internet protocol communication device of claim 23, wherein the digital to analog decoder converts digital audio information received at the digital audio receiver to a corresponding analog audio signal.

25. (original) The voice over internet protocol communication device of claim 23, wherein the analog to digital converter converts an analog audio signal to corresponding digital audio information to be transmitted by the digital audio transmitter.

26-27. (canceled)

28. (currently amended) An article of manufacture comprising:

a computer readable medium having stored thereon instructions which, when executed by a processor, cause the processor to:

determine a range of values that may be held in binary by a plurality of bits;

sense a high value of the range of values;

calculate a scaling value based on the high value of the range of values, wherein the calculated scaling value may represent one of at least three potential scaling values ~~determining a range within which a normal echo amplitude portion of an audio signal falls~~; and

scale the range of values that may be held in binary in association with the tap to the scaling value ~~range within which normal echo amplitude falls~~.

29. (original) The article of manufacture of claim 28, wherein the instructions further cause the processor to measure an echo amplitude and store a value corresponding to the magnitude of the measured amplitude in the plurality of bits based on the scale.

30. (previously presented) The method of claim 28, wherein the instructions further cause the processor to reduce a signal by the amplitude associated with a filter tap.